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PRIMPING *for a dance, islanders at Nuku'alofa, Tonga's capital, put finishing touches on their hairdos.*

LUIS MARDEN,
NATIONAL GEOGRAPHIC STAFF

scattered from below the southern tip of the Philippines almost to Australia. They share a few characteristics—gracefulness, cleanliness, politeness (except when angry). Time will tell whether these are enough to weld them together as one nation.

Such are the Indonesians who bring their troubles to Djakarta and who crowd its streets and the banks of its old canals. Before World War II, only half a million people lived in the capital. Now houses seemingly built for one family may shelter two or three. Though many streets are lined with pleasant bungalows, the city is honeycombed with kampongs, village settlements that give a rural look to this Chicago-size metropolis.

A canal cuts through the city, recalling Dutch influence that took root during

AVA HAMILTON

CANAL, built by the Dutch, serves as laundry and bathtub for many Djakarta families

the centuries when Indonesia was the Netherlands East Indies and Djakarta was Batavia. Buildings in the old city seem to have been transplanted from Amsterdam. Their steep-pitched roofs look odd under tropical skies. But streets of the new Djakarta, built on higher ground some 10 miles inland, spell the Orient. Careening traffic consists mostly of *betjaks*, or pedicabs, 30,000 of them, wheels spinning as fast as leg muscles can push pedals. Decorated by plumes, the vehicles raise a ruckus of clanging bells that enlarges the roar of automobiles and the babble of varied tongues as pedestrians scamper for safety.—

National Geographic References: ***Map***—Southeast Asia (paper, 75¢; fabric, $1.50). ***Magazine***—September, 1955, "This Young Giant, Indonesia" (75¢). ***School Bulletins***—October 3, 1955, "*Gotong-rojong* Keeps Indonesia Going" (10¢).

NATIONAL GEOGRAPHIC PHOTOGRAPHER J. BAYLOR ROBERTS

Djakarta Links Three Thousand Islands

IF the storm brewing in Indonesia reaches full fury, Djakarta's docks may lose this busy, peaceful look. Here, vessels load cargoes for the coastal trade among Indonesia's 3,000 islands. But a short way from such normal harbor activity, in an inland section of this capital city, the government of the eight-year-old Republic of Indonesia faces the sternest crisis of its young life.

Indonesians with little in common cooperated to build their nation and set up government at Djakarta, on the island of Java. Problems have since mounted. Recently, President Soekarno revealed plans for a new, stronger government. Many of some 80,000,000 Indonesians rebelled at the scheme, fearing it would reduce their own islands to mere dependencies of Java. They seek better representation, a bigger slice of profit from Indonesia's wealth of oil, rubber, other resources.

In this turmoil of different aims, Djakarta, to date, remains the focal point. Few of the Republic's groups state their cases in the same tongue. They speak about 40 languages. They cling to the individual cultures of islands that are

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the surer I was that the pounding of my own heart would give us away. The powerful animals started to shift nervously about, test the air. We hid behind separate rocks and fallen trees. Soon I heard our camera's familiar little hum. Then our scent reached them. Snorting heads went down. Abruptly our guide signaled us to move off.

About noon we parked our trucks under the trees back at camp. Joseph, the cook, had baked bread. Because the village was near we had the luxury of fresh eggs, mangoes, and bunches of bananas.

LEE MERRIAM TALBOT

We left camp in midafternoon to scout the countryside. Fresh leopard tracks printed the damp soil near a stream. We hunted the elusive animal for hours without luck. Leopards are hard to see, harder to photograph. As the sun fell, giraffes made silhouettes against topaz, then apricot, skies. Low, slant rays turned the coats of impala to copper-gold as they bounded through emerald-green groves. We worked hard until light faded. Hot, dusty from head to toe, we dug out soap and towels and swam in near-by Mosquito River, bubbling through twilit forest. In falling darkness, monkeys told me off from overhanging trees. I didn't really care.

A week later we pulled stakes, moved on towards famous Ngorongoro Crater. Twelve miles across, the giant bowl fills with wild animals when water and grazing dwindle on surrounding plains. From its rim, where we camped, earth seems to drop away. Tiny dots, far below, were elephant and rhino, gazelle, wildebeest, and zebra.

Like many others, I had pictured Africa as steaming jungle. Yet, around us, mists cleared from cool mountain air. Small lakes daubed blue patches in the green bowls of ancient craters. On clear days the peak of Mount Kilimanjaro (page 282) loomed like a distant snow island in intense blue sky. And before us spread miles of untamed plains, interrupted only by groves of umbrella-shaped acacia trees and small rock outcroppings.

We spent three weeks photographing animals on the Serengeti Plain. Reel after reel of film was exposed, sealed, and labeled. Cheetahs had put on spectacular shows before our cameras. The Serengeti Park lions were born "hams." Only the elusive leopard was missing from our footage. We were determined to find one, but long days passed without luck.

Common sense and a good guide usually kept us out of serious trouble with the animals. We left both back at camp the afternoon we finally found our leopard. Unusually large, beautifully marked, we saw it slip across a clearing into a thicket. We drove close in, hoping it would come out. It did. A tawny flash low to the ground, it quickly disappeared into another thicket. If ever an animal belonged on our film, we thought, it was this leop-

THREE LIONS

Races meet in Nairobi, Kenya's booming capital

YLLA FROM RAPHO-GUILLUMETTE

"I Learned About Safaris"

WHEN a rhino gets wind of you, he's apt to mill about, puffing like a steam engine. In that critical moment you have a chance to make some good movies. Then you'd better take off. Otherwise this irritable, four-footed locomotive of the animal kingdom is quite capable of moving first—fast, and straight at you. If he's like the rhino above, you'd feel safer facing up to an express train.

That was one of my first lessons during a three-month African safari last year. I also learned how to select equipment, from broad-brimmed felt hat to small indispensables like pencils and hand mirrors. I learned to breathe dust for miles of bumpy driving. I found myself helping push a five-ton supply truck loaded with tents, crates of food, gasoline drums and other gear out of deep mudholes. I discovered I could sleep while hyenas cackled close to my tent and lions argued in the darkness. Above all, I found out the right and wrong ways to take pictures of wild animals.

WILLIAM CAMPBELL III, NGS STAFF

JOCELYN ARUNDEL'S *career began at age five when her eight-year-old brother's newspaper needed a women's-page editor. A campaign to acquire giraffes for the Washington zoo veered her into conservation and natural history. Last year she went on safari to Africa before joining GSB staff.*

Photography was the aim of our expedition to Tanganyika. We got our first pictures near the village of Mto-wa-mbu, a tiny trade center in the shadow of the Great Rift wall. Early in the morning we piled into the two open-sided hunting cars and a British jeep to "shoot" big game.

Trucks bounced over narrow strips of grass between the lake and the rift wall. Herds of black buffalo moved toward the swamp after the night's grazing in the open. We stopped to photograph a newborn zebra (below) as it tottered to its feet. Flights of birds swirled like tiny storms.

The lead truck came to a sudden stop. Our guide was pointing. I grabbed binoculars and focused on two grey lumps half-hidden in an area of scrub and bush. "Faru!" breathed the African scout beside me. The rhinos could have been large, slaty rocks. We left the trucks parked and inched toward them on foot. Someone dropped a handful of fine dust to test the direction of the wind. Rhinos have poor eyesight, but a keen sense of smell. It's healthier to keep downwind. The closer we came,

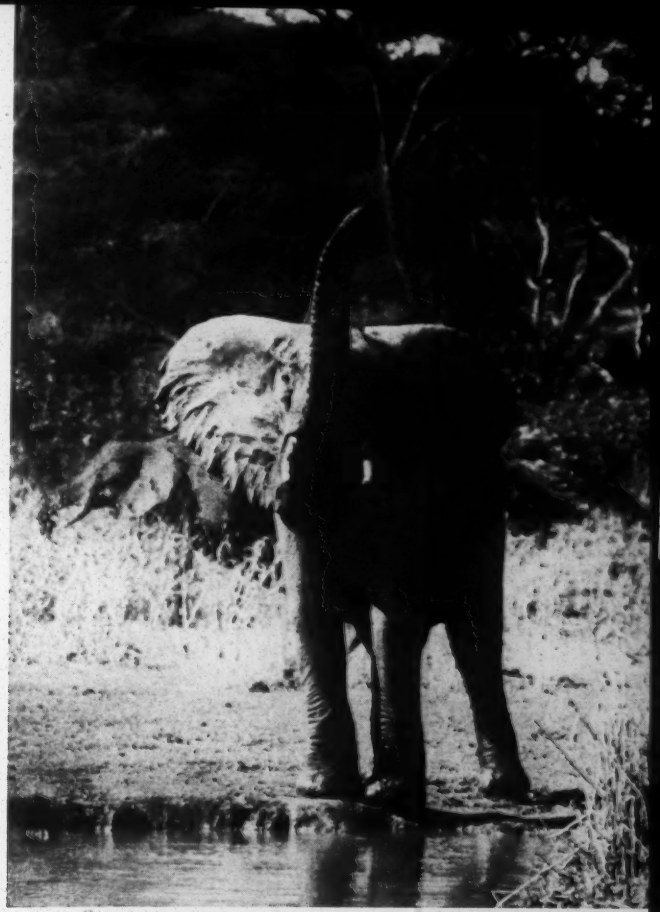
JOHN H. DICK

African Portraits

THE young lion stares defiantly over his kill. Disturbed at his water hole, a tusker's great ears spread as he bellows warning (right). Wild animals rarely attack unless wounded or provoked. Usually they're only intent on avoiding two-legged intruders. But they're still wild, hence unpredictable.

"Big game" photography needs luck and patience. To catch a giraffe with head down (below) might take long weeks. They have difficulty hoisting the long neck, so rarely take this pose unless keen senses assure the coast is clear.—

FRED A. WARDENBURG



BLACK STAR © MARCUSWELL MAXWELL

FRED A. WARDENBURG

ard. We threw all the rules to the wind. A second, a third time we forced it into the open.

Few animals are more dangerous than an antagonized leopard. This one wasn't becoming fond of us. But our photographers had their minds on footage. The trucks made turns, rushes, quick stops like a polo pony.

Suddenly our leopard made a break for a tall fever tree. Before we could gasp, it was crouched in the upper branches—a spotted cat trembling in white-hot fury. We jumped from the truck and set up the tripod. A Leica was already snapping. Soon the movie camera buzzed. But every muscle was tightening like a coil in the lithe body overhead. Lips curled back, spotted tail slapped warningly.

In intense moments like this it is not always possible to make the ideal photograph—for obvious reasons! Our movie film blurred, then went black as the leopard shot down the tree. Cameras and tripod tumbled. We threw ourselves into the truck as the cat came for us. Luckily the engine had not stalled. The truck surged forward just as the leopard sprang for the front seat, missing by inches. We minded our animal manners thereafter.—J.A.

LEE MERRIAM TALBOT

Because of requests, the story of westward expansion has been extended to include the coming of the stagecoach and, next week, the "iron horse."

The Butterfield Stage

SOMETIMES yowling Indians suddenly galloped past the stage, loosing a storm of arrows. Sometimes bandit bullets struck dust from iron-shod wheels. But letters, treasured like gold by far-from-home Californians in the 1850's, generally got through. Proud drivers of the Butterfield Overland Mail doffed hats to welcoming brass bands. They felt they deserved an ovation now and then. Their mail route spanned nearly 2,800 adventuresome miles—longest stage line in the world.

Coaches started at St. Louis, or Memphis, rendezvousing in Ft. Smith, Arkansas. Wheels ground dust through Oklahoma. Whips cracked across Texas to El Paso. Drowsy New Mexico stops like Ft. Fillmore and Soldiers Farewell came to life as the stage neared. Then stood Ft. Yuma, Arizona, and a hot breath of desert ahead. Finally, Los Angeles hove in sight. In those days it was a mere coastal settlement with a reputation for wickedness, even among tough western towns. Five hundred miles to the north brought the accolades of mail-hungry San Franciscans.

Before 1858, communication between east and west coasts depended mostly on ships making the long voyage around Cape Horn. Then John Butterfield got the government's $600,000-a-year contract for semiweekly service. His name conjured awe. He had operated an eastern stage company and a line of Erie Canal packet boats—had even freighted gold across the Isthmus of Panama.

Butterfield smashed every obstacle of distance, weather, water, and redskin. His equipment grew from Concord spring wagons carrying four passengers and 600 pounds of mail to coaches jamming nine inside and up to ten outside passengers. Stage stations stood from eight to twenty-five miles apart. When Indians rampaged, guards manned their adobe walls.

Success brought national acclaim to Butterfield. President Buchanan termed his achievement "a glorious triumph for civilization and the Union. Settlements will soon follow the course of the road, and the East and West will be bound together by a chain of living Americans which can never be broken."

But Butterfield's passengers have never been praised enough; each was a sort of hero. They paid around $200 to crouch inside the stagecoaches or cling upon the top for more than 20 days of day-and-night riding. Some weaker spirits jumped off at way stations to recover and await the next coach. Meanwhile, already-overcrowded riders were ordered to "move over" for wayside patrons. What each was told to take along indicates the kind of trip it was—one Sharp's rifle and 100 cartridges, a Colt's revolver and two pounds of balls, a knife and sheath. Thick boots and woolen pants were also recommended, along with thick woolen socks, a pair of gauntlets, a soldier's overcoat, three or four towels, and two pairs of thick drawers.

By 1860 more letters moved by the Butterfield route than on the ocean carriers. Only criticism was the southerly route—much longer than a possible central one through the mountains. But Butterfield advocates argued it was warmer down there. Then the Civil War came along. The road's location in southern territory doomed it in 1861.—S.H.

Bounding stagecoaches made choice targets for mounted redskins. But four-horse teams—"wild as deer and active as antelopes"—gave Indian ponies a run for their money

ISLANDERS hack out the trunk of a felled tree to fashion a graceful canoe

a six-foot-three height. Whether wearing the traditional *vala* (skirt) and tapa cloth of the islands, or a simple linen dress from a New Zealand shop, her regal manner and graciousness have won a reputation far beyond the boundaries of Tonga.

Little Tonga has no big factories or mines. Its only sizable industry and export is dried coconut meat, or copra. But it has lots of rare commodities like peace, leisure, and natural beauty. There is virtually no major crime in the Friendly Isles, and illiteracy has been almost completely erased.

As trade winds blow across Tonga, rustling velvet fronds of banana and palm, women beat out tapa cloth and men rake copra for drying (below). Polynesian children do their homework and play in the blue surf. The twentieth century hasn't robbed Tonga of the item that first named it—friendliness.—J.A.

See the National Geographic Society map of the Pacific Ocean (paper, 75¢; fabric, $1.50).

Tallest Queen Rules Tiny Tonga

Photographs by Luis Marden, National Geographic Staff

THE Polynesian housewife, above, hangs an octopus out to dry as naturally as if it were a Monday morning wash. Just part of everyday living in Tonga, a small Polynesian monarchy, under British protection, about midway between Fiji and Samoa.

The kingdom of Tonga, or the Friendly Isles, numbers about 150 coral and volcanic islands—pepper grains on the National Geographic map of the Pacific Ocean. Altogether they claim a land area of only 250 square miles.

Names we struggle to pronounce label the islands—Ha'apai, Niuatoputapu, Vava'u, Eua. Niuafo'ou bears another tag, joltingly discordant compared to its musically named neighbors. It's called Tin Can Island. Wave-lashed and remote Tin Can Island lies on the northern fringe of the Tonga archipelago. For years islanders swam to steamers far offshore to collect mail in sealed biscuit tins. Thus the name. The fame of the paddling postman spread until the tiny island was deluged by letters from stamp collectors. The lucky ones had them returned with the imprint "Tin Can Mail." Sharks eventually interfered and the job of swimming the mail became vacant. But when the system flourished, little Tin Can Island was probably the only spot in the world where sharks rather than dogs nipped at the heels of a postman on his rounds.

Crescent-shaped Tongatapu, the largest of the Tongas, holds the seat of its government. Here, the world's tallest queen, Salote, rules adoring subjects from

LUIS MARDEN, NATIONAL GEOGRAPHIC STAFF

SALOTE TUPOU *of Tonga traveled 17,000 miles in 1953 for the coronation of another island queen, Elizabeth II of Great Britain. The tall, gracious monarch won London's heart when she refused to allow her carriage top to be raised though a chill rain was sweeping the coronation procession. Later that year, Queen Elizabeth returned the call, visiting the friendly South Pacific domain of Queen Salote.*